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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/690,058	CONTI, CARLO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Igor Kershteyn	3745	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 12 October 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date ____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material         | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|  | 9. <input type="checkbox"/> Other ____.   |

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Timothy Keefer (Reg. No. 35,567) on 01/12/05.

The application has been amended as follows:

#### **IN THE CLAIMS:**

In claim 5, line 3, "a rear closing" has been changed to --the--,

In claim 5, line 3, --radial-- has been added after "said".

The above changes have been made to provide proper antecedent basis for the recited components.

#### ***Reasons for allowance***

The following is an examiner's statement of reasons for allowance:

The instant invention is deemed to be directed to an unobvious improvement to a pump over U.S. Patent No. 3,825,366 which teaches a pump 10 comprising a body (not numbered), an actuating shaft 18 on which at least a first impeller 28 and a second impeller 26 are coaxially mounted, the first impeller 28 being housed in a front chamber

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(not numbered) and said second impeller being housed in a rear chamber (not numbered), the rear chamber connected to a fluid intake duct 14 and a fluid delivery duct 16, wherein: said front chamber is delimited by said body and by an interstage body 12; said rear chamber is delimited by said interstage body 12 and by a shield (not numbered), said interstage body 12 has: two volutes (not numbered) respectively associated with the corresponding first impeller 28 and second impeller 26.

The improvement comprises a first discharge orifice associated the first volute; a second discharge orifice connecting the second volute to the delivery duct; wherein said body comprises a channel for the throughflow of fluid from said front chamber to a means for supplying the fluid to the second impeller.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Prior Art***

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consist of two patents.

Ravicchio et al. (3,934,752) is cited to show a centrifugal pump having a first impeller, a second impeller, a body, an interstage body, a front and rear chambers but fails to teach means for supplying fluid to the second impeller.

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McKenna (5,320,489) is cited to show a centrifugal pump having a first impeller, a second impeller, a body, an interstage body, a front and rear chambers but fails to teach means for supplying fluid to the second impeller.

***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is **(571)272-4817**. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on **(571)272-4820**. The fax number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK  
January 13, 2005



**Igor Kershteyn**  
**Patent examiner.**  
**Art Unit 3745**



**EDWARD K. LOOK**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**

1/19/05